

Method for the Treatment and Prevention of Dental Caries.ST25.txt
SEQUENCE LISTING

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<120> Method for the Treatment and Prevention of Dental Caries

<130> 22851-032

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<160> 32

<170> PatentIn version 3.0

<210> 1

<211> 420

<212> DNA

<213> Murine

<220>

<221> CDS

<222> (14)..(415)

<400> 1

ggggatatcc acc atg gag aca gac aca ctc ctg cta tgg gtg ctg ctg
49

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu

1

5

10

ctc tgg gtt cca ggt tcc aca ggt gac att gtg ctg acc caa tct cca
97

Leu Trp Val Pro Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro

15

20

25

gtt tct ttg gct gtg tct cta ggg cag agg gcc acc ata tcc tgc aga
45

Val Ser Leu Ala Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Arg

1

Method for the Treatment and Prevention of Dental Caries.ST25.txt

30

35

40

gcc agt gaa agt gtt gat agt tat ggc aat agt ttt atg aac tgg tac 1
93

Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met Asn Trp Tyr

45

50

55

60

cag cag aaa cca gga cag cca ccc caa ctc ctc atc tat cgt gca tcc 2
41

Gln Gln Lys Pro Gly Gln Pro Pro Gln Leu Leu Ile Tyr Arg Ala Ser

65

70

75

aat cta gaa tac ggg atc cct gcc agg ttc agt ggc agt ggg tct agg 2
89

Asn Leu Glu Tyr Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Arg

80

85

90

aca gac ttc acc ctc acc att aat cct gtg gag gct gat gat gtt gca 3
37

Thr Asp Phe Thr Leu Thr Ile Asn Pro Val Glu Ala Asp Asp Val Ala

95

100

105

acc tat tac tgt cag caa aat aat gcg gat cct ccc acg ttc gga ggg 3
85

Thr Tyr Tyr Cys Gln Gln Asn Asn Ala Asp Pro Pro Thr Phe Gly Gly

110

115

120

ggg acc aag ttg gaa atc aaa cgt aag tcg acgct 4
20

Gly Thr Lys Leu Glu Ile Lys Arg Lys Ser

125

130

<210> 2

<211> 134

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<212> PRT

<213> Murine

<400> 2

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Val Ser Leu Ala
20 25 30

Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser
35 40 45

Val Asp Ser Tyr Gly Asn Ser Phe Met Asn Trp Tyr Gln Gln Lys Pro
50 55 60

Gly Gln Pro Pro Gln Leu Leu Ile Tyr Arg Ala Ser Asn Leu Glu Tyr
65 70 75 80

Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr
85 90 95

Leu Thr Ile Asn Pro Val Glu Ala Asp Asp Val Ala Thr Tyr Tyr Cys
100 105 110

Gln Gln Asn Asn Ala Asp Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
115 120 125

Glu Ile Lys Arg Lys Ser
130

<210> 3

<211> 454

<212> DNA

<213> Murine

<220>

<221> CDS

Method for the Treatment and Prevention of Dental Caries.ST25.txt
<222> (14)..(430)

<400> 3

ggggatatcc acc atg gct gtc ttg ggg ctg ctc ttc tgc ctg gtg aca
49

Met Ala Val Leu Gly Leu Leu Phe Cys Leu Val Thr

1

5

10

ttc cca agc tgt gtc ctg tcc cag gtg cag ctg aag gag tca gga cct
97

Phe Pro Ser Cys Val Leu Ser Gln Val Gln Leu Lys Glu Ser Gly Pro

15

20

25

ggc ctg gtg gcg ccc tca cag agc ctg tcc atc aca tgc act gtc tca
45

Gly Leu Val Ala Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser

30

35

40

ggg ttc tca tta acc aac tat gat ata aat tgg gtt cgc cag cct cca
93

Gly Phe Ser Leu Thr Asn Tyr Asp Ile Asn Trp Val Arg Gln Pro Pro

45

50

55

60

gga aag ggt ctg gag tgg ctg gga ata ata tgg ggt gac ggg agc aca
41

Gly Lys Gly Leu Glu Trp Leu Gly Ile Ile Trp Gly Asp Gly Ser Thr

65

70

75

aat tat cat tca gct ctc ata tcc aga ctg agc atc agc aag gat aac
89

Asn Tyr His Ser Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn

80

85

90

tcc aag agc caa att ttc tta aaa ctg aac agt ctg caa act gat gac
37

Ser Lys Ser Gln Ile Phe Leu Lys Leu Asn Ser Leu Gln Thr Asp Asp

3

Method for the Treatment and Prevention of Dental Caries.ST25.txt

95

100

105

aca gcc acg tac tac tgt aac tac ccg tgt tta tat ttc tat ggt atg 3
85

Thr Ala Thr Tyr Tyr Cys Asn Tyr Pro Cys Leu Tyr Phe Tyr Gly Met

110

115

120

gac tac tgg ggt caa gga acc tca gtc acc gtc tct tca gct agc 4
30

Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser

125

130

135

acaacagccc catcagtcga ccca

54

4

<210> 4

<211> 139

<212> PRT

<213> Murine

<400> 4

Met Ala Val Leu Gly Leu Leu Phe Cys Leu Val Thr Phe Pro Ser Cys
1 5 10 15

Val Leu Ser Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala
20 25 30

Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu
35 40 45

Thr Asn Tyr Asp Ile Asn Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
50 55 60

Glu Trp Leu Gly Ile Ile Trp Gly Asp Gly Ser Thr Asn Tyr His Ser
65 70 75 80

Method for the Treatment and Prevention of Dental Caries.ST25.txt

Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln
85 90 95

Ile Phe Leu Lys Leu Asn Ser Leu Gln Thr Asp Asp Thr Ala Thr Tyr
100 105 110

Tyr Cys Asn Tyr Pro Cys Leu Tyr Phe Tyr Gly Met Asp Tyr Trp Gly
115 120 125

Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser
130 135

<210> 5
<211> 411
<212> DNA
<213> Murine

<220>
<221> CDS
<222> (14) .. (406)

<400> 5
ggggatatcc acc atg gat ttt caa gtg cag att ttc agc ttc ctg cta
49

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu

1 5 10

atc agt gtc aca gtc ata ttg acc aat gga gaa att ttg ctc acc ccg
97

Ile Ser Val Thr Val Ile Leu Thr Asn Gly Glu Ile Leu Leu Thr Pro

15 20 25

tct cca gca atc ata gct gca tct cct ggg gaa aag gtc acc atc acc
45

Ser Pro Ala Ile Ile Ala Ala Ser Pro Gly Glu Lys Val Thr Ile Thr

30 35 40

1

Method for the Treatment and Prevention of Dental Caries.ST25.txt

tgc agt gcc agc tca agt gtt agt tac atg aac tgg tac cag cag aaa 1
93

Cys Ser Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys

45 50 55 60

cca gga tct tcc ccc aaa atc tgg att tat ggt gta tcc aac ctg gct 2
41

Pro Gly Ser Ser Pro Lys Ile Trp Ile Tyr Gly Val Ser Asn Leu Ala

65 70 75

tct gga gtt cct gct cgc ttc agt ggc agt ggg tct ggg aca tct ttc 2
89

Ser Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Phe

80 85 90

tct ttc aca atc aac agc atg gag gct gaa gat gtt gcc act tat tac 3
37

Ser Phe Thr Ile Asn Ser Met Glu Ala Glu Asp Val Ala Thr Tyr Tyr

95 100 105

tgt cag caa agg agt agt tac cca ttc acg ttc ggc tcg ggg acc aag 3
85

Cys Gln Gln Arg Ser Ser Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys

110 115 120

ctg gaa ata aaa cgt aag tcg acgct 4
11

Leu Glu Ile Lys Arg Lys Ser

125 130

<210> 6
<211> 131
<212> PRT
<213> Murine

Method for the Treatment and Prevention of Dental Caries.ST25.txt
<400> 6

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Val Thr
1 5 10 15

Val Ile Leu Thr Asn Gly Glu Ile Leu Leu Thr Pro Ser Pro Ala Ile
20 25 30

Ile Ala Ala Ser Pro Gly Glu Lys Val Thr Ile Thr Cys Ser Ala Ser
35 40 45

Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly Ser Ser
50 55 60

Pro Lys Ile Trp Ile Tyr Gly Val Ser Asn Leu Ala Ser Gly Val Pro
65 70 75 80

Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Phe Ser Phe Thr Ile
85 90 95

Asn Ser Met Glu Ala Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Arg
100 105 110

Ser Ser Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
115 120 125

Arg Lys Ser
130

<210> 7
<211> 465
<212> DNA
<213> Murine

<220>
<221> CDS
<222> (13) .. (441)

<400> 7

Method for the Treatment and Prevention of Dental Caries.ST25.txt
 gggatatcca cc atg gac agg ctt act tct tca ttc ctg cta ctg att gtt
 51

Met Asp Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val

1

5

10

cct gca tat gtc ctc tcc cag gtt act ctg aaa gag tct ggc cct ggg
 99

Pro Ala Tyr Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly

15

20

25

ata ttg cag ccc tcc cag acc ctc agt ctg act tgt tct ttc tct ggg
 47

Ile Leu Gln Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly

30

35

40

45

ttt tca ctg aga act tat ggt ata gga gta ggc tgg att cgt cag cct
 95

Phe Ser Leu Arg Thr Tyr Gly Ile Gly Val Gly Trp Ile Arg Gln Pro

50

55

60

tca ggg agg ggt ctg gag tgg ctg gca cac att tgg tgg aat gat aat
 43

Ser Gly Arg Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asn Asp Asn

65

70

75

aag tac tat aac aca gtc ctg aag agc cgg ctc aca atc tcc aag gat
 91

Lys Tyr Tyr Asn Thr Val Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp

80

85

90

acc tcc aac aac cag gta ttc ctc aag atc gcc agt gtg gac act gca
 39

Thr Ser Asn Asn Gln Val Phe Leu Lys Ile Ala Ser Val Asp Thr Ala

95

100

105

Method for the Treatment and Prevention of Dental Caries.ST25.txt

gat act gcc aca tac tac tgt gcg cga ata gag ggg ggc tcg ggc tac 3
87

Asp Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Glu Gly Gly Ser Gly Tyr

110 115 120 125

gat gtt atg gac tac tgg ggt caa gga atc tca gtc acc gtc tct tca 4
35

Asp Val Met Asp Tyr Trp Gly Gln Gly Ile Ser Val Thr Val Ser Ser

130 135 140

gct agc acaacacccc catctgtcga ccca 4
65

Ala Ser

<210> 8

<211> 143

<212> PRT

<213> Murine

<400> 8

Met Asp Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val Pro Ala Tyr
1 5 10 15

Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln
20 25 30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
35 40 45

Arg Thr Tyr Gly Ile Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Arg
50 55 60

Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asn Asp Asn Lys Tyr Tyr
65 70 75 80

Method for the Treatment and Prevention of Dental Caries.ST25.txt

Asn Thr Val Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Asn
85 90 95

Asn Gln Val Phe Leu Lys Ile Ala Ser Val Asp Thr Ala Asp Thr Ala
100 105 110

Thr Tyr Tyr Cys Ala Arg Ile Glu Gly Gly Ser Gly Tyr Asp Val Met
115 120 125

Asp Tyr Trp Gly Gln Gly Ile Ser Val Thr Val Ser Ser Ala Ser
130 135 140

<210> 9

<211> 420

<212> DNA

<213> Murine

<220>

<221> CDS

<222> (13)..(417)

<400> 9

gggatatcca cc atg atg agt cct gcc cag ttc ctg ttt ctg tta gtg ctc
51

Met Met Ser Pro Ala Gln Phe Leu Phe Leu Leu Val Leu

1

5

10

tgg att cgg gaa acc aac ggt gat gtt gtg atg acc cag act cca ctc
99

Trp Ile Arg Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu

15

20

25

act ttg tcg gtt acc att gga caa cca gcc tcc atc tct tgc aag tca
47

Thr Leu Ser Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser

30

35

40

45

Method for the Treatment and Prevention of Dental Caries.ST25.txt

agt cag agc ctc tta gat cgt gat gga agg aca tat ttg agt tgg ttg 1
95

Ser Gln Ser Leu Leu Asp Arg Asp Gly Arg Thr Tyr Leu Ser Trp Leu

50

55

60

tta cag agg cca ggc cag tct cca aag cgc cta atc tat ctg gtg tct 2
43

Leu Gln Arg Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser

65

70

75

aaa ctg gac tct gga gtc cct gac agg ttc act ggc agt gga tca ggg 2
91

Lys Leu Asp Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly

80

85

90

aca gat ttc aca ctg aaa atc agc aga gtg gag gct gag gat ttg gga 3
39

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly

95

100

105

gtt tat tat tgc tgg caa ggt aca cat ttt ccg ctc acg ttc ggt gct 3
87

Val Tyr Tyr Cys Trp Gln Gly Thr His Phe Pro Leu Thr Phe Gly Ala

110

115

120

125

ggg acc aag ctg gag ctg aaa cgt aag tcg acc 4
20

Gly Thr Lys Leu Glu Leu Lys Arg Lys Ser

130

135

<210> 10

<211> 135

<212> PRT

<213> Murine

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<400> 10

Met Met Ser Pro Ala Gln Phe Leu Phe Leu Leu Val Leu Trp Ile Arg
1 5 10 15

Glu Thr Asn Gly Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser
20 25 30

Val Thr Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
35 40 45

Leu Leu Asp Arg Asp Gly Arg Thr Tyr Leu Ser Trp Leu Leu Gln Arg
50 55 60

Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr
100 105 110

Cys Trp Gln Gly Thr His Phe Pro Leu Thr Phe Gly Ala Gly Thr Lys
115 120 125

Leu Glu Leu Lys Arg Lys Ser
130 135

<210> 11

<211> 466

<212> DNA

<213> Murine

<220>

<221> CDS

<222> (11) .. (442)

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<400> 11

gatatccacc atg gac ttc ggg ttg agc ttg gtt ttc ctt gtc ctt act
49

Met Asp Phe Gly Leu Ser Leu Val Phe Leu Val Leu Thr

1

5

10

tta aaa ggt gtc cag tgt gac gtg aag ctg gtg gag tct ggg gga ggc
97

Leu Lys Gly Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly

15

20

25

tta gtg aac cct gga ggg tcc ctg aaa ctc tcc tgt gca gcc tct gga
45

Leu Val Asn Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly

30

35

40

45

ttc act ttc agt agc tat acc atg tct tgg gtt cgc cag act ccg gag
93

Phe Thr Phe Ser Ser Tyr Thr Met Ser Trp Val Arg Gln Thr Pro Glu

50

55

60

aag agg ctg gag tgg gtc gca tcc att agt agt ggt ggt act tac acc
41

Lys Arg Leu Glu Trp Val Ala Ser Ile Ser Ser Gly Gly Thr Tyr Thr

65

70

75

tac tat cca gac agt gtg aag ggc cga ttc acc atc tcc aga gac aat
89

Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn

80

85

90

gcc aag aac acc ctg tac ctg caa atg acc agt ctg aag tct gag gac
37

Ala Lys Asn Thr Leu Tyr Leu Gln Met Thr Ser Leu Lys Ser Glu Asp

95

100

105

Method for the Treatment and Prevention of Dental Caries.ST25.txt

aca gcc atg tat tac tgt tca aga gat gac ggc tcc tac ggc tcc tat 3
85

Thr Ala Met Tyr Tyr Cys Ser Arg Asp Asp Gly Ser Tyr Gly Ser Tyr

110 115 120 125

tac tat gct atg gac tac tgg ggt caa gga acc tca gtc acc gtc tct 4
33

Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser

130 135 140

tca gct agc tcaacacccc catcagtcga ccca 4
66

Ser Ala Ser

<210> 12
<211> 144
<212> PRT
<213> Murine

<400> 12

Met Asp Phe Gly Leu Ser Leu Val Phe Leu Val Leu Thr Leu Lys Gly
1 5 10 15

Val Gln Cys Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Asn
20 25 30

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu
50 55 60

Glu Trp Val Ala Ser Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Pro

Method for the Treatment and Prevention of Dental Caries.ST25.txt

65

70

75

80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Met
100 105 110

Tyr Tyr Cys Ser Arg Asp Asp Gly Ser Tyr Gly Ser Tyr Tyr Tyr Ala
115 120 125

Met Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser
130 135 140

<210> 13
<211> 481
<212> DNA
<213> Murine

<220>
<221> CDS
<222> (28)..(411)

<220>
<221> variation
<222> (420)..(420)
<223> atgc

<220>
<221> variation
<222> (449)..(449)
<223> atgc

<220>
<221> variation
<222> (454)..(454)
<223> atgc

<220>
<221> variation

Method for the Treatment and Prevention of Dental Caries.ST25.txt
<222> (423)..(423)
<223> atgc

<400> 13
cagaattcgc ccttggggat atccacc atg gag aca gac aca ctc ctg cta tgg
54

Met Glu Thr Asp Thr Leu Leu Leu Trp

1

5

gta ctg ctg ctc tgg gtt cca ggt tcc act ggt gac att gtg ctg aca 1
02
Val Leu Leu Leu Trp Val Pro Gly Ser Thr Gly Asp Ile Val Leu Thr
10 15 20 25

cag tct cct gct tcc tta gct gta tct ctg ggg cag agg gcc acc atc 1
50
Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly Gln Arg Ala Thr Ile
30 35 40

tca tac agg gcc agc aaa agt gtc agt aca tct ggc tat agt tat atg 1
98
Ser Tyr Arg Ala Ser Lys Ser Val Ser Thr Ser Gly Tyr Ser Tyr Met
45 50 55

cac tgg aac caa cag aaa cca gga cag cca ccc aga ctc ctc atc tat 2
46
His Trp Asn Gln Gln Lys Pro Gly Gln Pro Pro Arg Leu Leu Ile Tyr
60 65 70

ctt gta tcc aac cta gaa tct ggg gtc cct gcc agg ttc agt ggc agt 2
94
Leu Val Ser Asn Leu Glu Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
75 80 85

ggg tct ggg aca gac ttc acc ctc aac atc cat cct gtg gag gag gag 3

Method for the Treatment and Prevention of Dental Caries.ST25.txt

42

Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His Pro Val Glu Glu Glu

90

95

100

105

gat gct gca acc tat tac tgt cag cac att agg gag ctt aca cgt tcg

3

90

Asp Ala Ala Thr Tyr Tyr Cys Gln His Ile Arg Glu Leu Thr Arg Ser

110

115

120

gag ggg gga cca agc tgg aaa taaaacggnc tnatgctgca ccaactgtat

4

41

Glu Gly Gly Pro Ser Trp Lys

125

ccatcttnaa aancatcagt tctagagaag ggcgaattcc

4

81

<210> 14

<211> 128

<212> PRT

<213> Murine

<400> 14

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro

1

5

10

15

Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala

20

25

30

Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Tyr Arg Ala Ser Lys Ser

35

40

45

Val Ser Thr Ser Gly Tyr Ser Tyr Met His Trp Asn Gln Gln Lys Pro

50

55

60

Gly Gln Pro Pro Arg Leu Leu Ile Tyr Leu Val Ser Asn Leu Glu Ser

Method for the Treatment and Prevention of Dental Caries.ST25.txt
65 70 75 80

Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
85 90 95

Leu Asn Ile His Pro Val Glu Glu Glu Asp Ala Ala Thr Tyr Tyr Cys
100 105 110

Gln His Ile Arg Glu Leu Thr Arg Ser Glu Gly Gly Pro Ser Trp Lys
115 120 125

<210> 15
<211> 466
<212> DNA
<213> Murine

<220>
<221> CDS
<222> (14) .. (442)

<400> 15
ggggatatcc acc atg aac ttc ggg ttg agc tgg gtt ttc ttt gtt gtt
49

Met Asn Phe Gly Leu Ser Trp Val Phe Phe Val Val

1 5 10

ttt tat caa ggt gtg cat tgt gag gtg cag ctt gtt gag act ggt gga
97

Phe Tyr Gln Gly Val His Cys Glu Val Gln Leu Val Glu Thr Gly Gly

15 20 25

gga ttg gtg cag cct aaa ggg tca ttg aaa ctc tca tgt gca gcc tct
45

Gly Leu Val Gln Pro Lys Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser

30 35 40

gga ttc acc ttc aat acc aat gcc atg aac tgg gtc cgc cag gct cca
93

1

1

Method for the Treatment and Prevention of Dental Caries.ST25.txt
 Gly Phe Thr Phe Asn Thr Asn Ala Met Asn Trp Val Arg Gln Ala Pro

45 50 55 60

gga aag ggt ttg gaa tgg gtt gct cgc ata aga agt aaa agt aat aac 2
 41
 Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Ser Asn Asn

65 70 75

tat gca aca tat tat gcc gat tca gtg gaa gac agg ttc acc atc tcc 2
 89
 Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Glu Asp Arg Phe Thr Ile Ser

80 85 90

aga gat gat tca caa agc atg ctc tat ctg caa atg aac aac ttg aaa 3
 37
 Arg Asp Asp Ser Gln Ser Met Leu Tyr Leu Gln Met Asn Asn Leu Lys

95 100 105

act gag gac aca gcc atg tat tac tgt gtg aga aac tac tat gat tac 3
 85
 Thr Glu Asp Thr Ala Met Tyr Tyr Cys Val Arg Asn Tyr Tyr Asp Tyr

110 115 120

gac gcc tgg tcc gct tac tgg ggc caa ggg act gtg gtc act gtc tct 4
 33
 Asp Ala Trp Ser Ala Tyr Trp Gly Gln Gly Thr Val Val Thr Val Ser

125 130 135 140

tca gct agc acaacacccc catcagtcta ccca 4
 66
 Ser Ala Ser

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<210> 16
 <211> 143
 <212> PRT
 <213> Murine

<400> 16

Met Asn Phe Gly Leu Ser Trp Val Phe Phe Val Val Phe Tyr Gln Gly
 1 5 10 15

Val His Cys Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Val Gln
 20 25 30

Pro Lys Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Asn Thr Asn Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Val Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr
 65 70 75 80

Tyr Ala Asp Ser Val Glu Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser
 85 90 95

Gln Ser Met Leu Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr
 100 105 110

Ala Met Tyr Tyr Cys Val Arg Asn Tyr Tyr Asp Tyr Asp Ala Trp Ser
 115 120 125

Ala Tyr Trp Gly Gln Gly Thr Val Val Thr Val Ser Ser Ala Ser
 130 135 140

<210> 17
 <211> 518
 <212> DNA
 <213> Murine

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<220>

<221> CDS

<222> (29)..(376)

<220>

<221> variation

<222> (459)..(459)

<223> atgc

<220>

<221> variation

<222> (482)..(482)

<223> atgc

<220>

<221> variation

<222> (490)..(491)

<223> atgc

<400> 17

gcagaattcg cccttgggga tatccacc atg gct gtc ttg ggg ctg ctc ttc

52

Met Ala Val Leu Gly Leu Leu Phe

1

5

tgc ctg gtg aca ttc cca agc tgt gtc ctg tcc cag gtg cag ctg aag

00

Cys Leu Val Thr Phe Pro Ser Cys Val Leu Ser Gln Val Gln Leu Lys

10

15

20

gac tca gga cct ggc ctg gtg gcg ccc tca cag agc ctg tcc atc aca

48

Asp Ser Gly Pro Gly Leu Val Ala Pro Ser Gln Ser Leu Ser Ile Thr

25

30

35

40

tgc act gtc tca ggg ttc tca tta acc aac tat gat ata aat tgg gtt

96

Cys Thr Val Ser Gly Phe Ser Leu Thr Asn Tyr Asp Ile Asn Trp Val

1

cgc cag cct cca gga aag ggt ctg gag tgg ctg gga ata ata tgg ggt 2
44
Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu Gly Ile Ile Trp Gly
60 65 70

gac ggg agc aca aat tat cat tca gct ctc ata tcc aga ctg agc atc 2
92
Asp Gly Ser Thr Asn Tyr His Ser Ala Leu Ile Ser Arg Leu Ser Ile
75 80 85

agc aag gat aac tcc aag agc caa att ttc tta aaa ctg aac agt ctg 3
40
Ser Lys Asp Asn Ser Lys Ser Gln Ile Phe Leu Lys Leu Asn Ser Leu
90 95 100

caa act gat gac aca gcc acg tac tac tgt tta ttg taactacccg 3
86
Gln Thr Asp Asp Thr Ala Thr Tyr Tyr Cys Leu Leu
105 110 115

tgttttatatt tctatggtat ggactactgg ggtcaaggaa cctcagtcac cgtctcctca 4
46

gccaaaacaa cancccccac ggtctatcca ctggcnctg tgannagat tctaaaccta 5
06

agggcgaatt cc 5
18

<210> 18
<211> 116
<212> PRT
<213> Murine

<400> 18

Method for the Treatment and Prevention of Dental Caries.ST25.txt
 Met Ala Val Leu Gly Leu Leu Phe Cys Leu Val Thr Phe Pro Ser Cys
 1 5 10 15

Val Leu Ser Gln Val Gln Leu Lys Asp Ser Gly Pro Gly Leu Val Ala
 20 25 30

Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu
 35 40 45

Thr Asn Tyr Asp Ile Asn Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Leu Gly Ile Ile Trp Gly Asp Gly Ser Thr Asn Tyr His Ser
 65 70 75 80

Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln
 85 90 95

Ile Phe Leu Lys Leu Asn Ser Leu Gln Thr Asp Asp Thr Ala Thr Tyr
 100 105 110

Tyr Cys Leu Leu
 115

<210> 19
 <211> 482
 <212> DNA
 <213> Murine

<220>
 <221> CDS
 <222> (27)..(482)

<400> 19
 ggaattcgcc cttgggggata tccacc atg gga tgg agc tgg gtc atg ctc ttt
 53

Met Gly Trp Ser Trp Val Met Leu Phe

1

5

Method for the Treatment and Prevention of Dental Caries.ST25.txt

ctc ctg gca gga act gca ggt gtc ctc tct gag gtc cag ctg caa cag 1
01

Leu Leu Ala Gly Thr Ala Gly Val Leu Ser Glu Val Gln Leu Gln Gln

10 15 20 25

tct gga cct gag ctg gtg aag cct ggg gct tca gtg aag ata tcc tgc 1
49

Ser Gly Pro Glu Leu Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys

30 35 40

aag act tct gga tac aca ttc act gaa tac aac atg cac tgg gtg aaa 1
97

Lys Thr Ser Gly Tyr Thr Phe Thr Glu Tyr Asn Met His Trp Val Lys

45 50 55

cag agc cat gga aag agc ctt gag tgg att gga ggt att aat cct aac 2
45

Gln Ser His Gly Lys Ser Leu Glu Trp Ile Gly Gly Ile Asn Pro Asn

60 65 70

aat ggt ggt act agt tac aac cag aag ttc aag gcc aag gcc aca ttg 2
93

Asn Gly Gly Thr Ser Tyr Asn Gln Lys Phe Lys Ala Lys Ala Thr Leu

75 80 85

act gta gac aag tcc tcc agc aca gcc tac atg gag ctc cgc aac ctg 3
41

Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr Met Glu Leu Arg Asn Leu

90 95 100 105

aca tct gag gat tct gca gtc tat tac tgt gca agg ggg gtt tat gat 3
89

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Gly Val Tyr Asp

110 115 120

Method for the Treatment and Prevention of Dental Caries.ST25.txt

ggt tac tcc ctt ttg act act ggg gcc aag gca cca ctc tca cag tct 4
37

Gly Tyr Ser Leu Leu Thr Thr Gly Ala Lys Ala Pro Leu Ser Gln Ser

125

130

135

cct cag cca aaa caa cag ccc cat cgg tct atc cac tgg ccc ctg 4
82

Pro Gln Pro Lys Gln Gln Pro His Arg Ser Ile His Trp Pro Leu

140

145

150

<210> 20

<211> 152

<212> PRT

<213> Murine

<400> 20

Met Gly Trp Ser Trp Val Met Leu Phe Leu Leu Ala Gly Thr Ala Gly
1 5 10 15

Val Leu Ser Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
20 25 30

Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe
35 40 45

Thr Glu Tyr Asn Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu
50 55 60

Glu Trp Ile Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn
65 70 75 80

Gln Lys Phe Lys Ala Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
85 90 95

Method for the Treatment and Prevention of Dental Caries.ST25.txt
Thr Ala Tyr Met Glu Leu Arg Asn Leu Thr Ser Glu Asp Ser Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Gly Val Tyr Asp Gly Tyr Ser Leu Leu Thr Thr
115 120 125

Gly Ala Lys Ala Pro Leu Ser Gln Ser Pro Gln Pro Lys Gln Gln Pro
130 135 140

His Arg Ser Ile His Trp Pro Leu
145 150

<210> 21
<211> 37
<212> DNA
<213> synthetic construct

<400> 21
ggggatatcc acatggagac agacacactc ctgctat
37

<210> 22
<211> 29
<212> DNA
<213> synthetic construct

<400> 22
gcgtctagaa ctggatggtg ggaagatgg
29

<210> 23
<211> 35
<212> DNA
<213> synthetic construct

<400> 23
agcgtcgact tacgtttkat ttccarcttk gtccc
35

<210> 24
<211> 38

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<212> DNA
<213> synthetic construct

<400> 24
ggggatatcc acatgractt cgggytgagc tkggtttt
38

<210> 25
<211> 37
<212> DNA
<213> synthetic construct

<400> 25
ggggatatcc acatggctgt cttggggctg ctcttct
37

<210> 26
<211> 39
<212> DNA
<213> synthetic construct

<400> 26
aggtctagaa yctccacaca caggrrrccag tggatagac
39

<210> 27
<211> 39
<212> DNA
<213> synthetic construct

<400> 27
tgggtcgacw gatggggstg ttgtgctagc tgaggagac
39

<210> 28
<211> 38
<212> DNA
<213> synthetic construct

<400> 28
ggggatatcc acatggattt tcaagtgcag attttcag
38

Method for the Treatment and Prevention of Dental Caries.ST25.txt

<210> 29
<211> 38
<212> DNA
<213> synthetic construct

<400> 29
ggggatatcc acatggratg sagctgkgtm atscctctt
38

<210> 30
<211> 39
<212> DNA
<213> synthetic construct

<400> 30
gggatatcca ccattggrcag rcttacwtyy tcattcctg
39

<210> 31
<211> 34
<212> DNA
<213> synthetic construct

<400> 31
ggggatatcc acatgatgag tcctgcccag ttcc
34

<210> 32
<211> 30
<212> DNA
<213> synthetic construct

<400> 32
ggtcgactta cgtttcagct ccagcttggt
30